Art Unit: 1734

Examiner: Edwards

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Docket No.: 55559US002

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

John R. Jacobson et al.

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**COATING APPARATUS** 

Commissioner for Patents

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# REPLY BŘIEF

Appellants submit the following Reply Brief in response to the Examiner's Answer dated July 8, 2003.

As a preliminary matter Appellants respectfully remind the Board that for a rejection under 35 U.S.C. § 102(b) to be sustained, the cited prior art must teach each and every element of the claimed invention. See, M.P.E.P. 2131. Appellants further respectfully request that the Board carefully read Appellants' claims and not be misled by statements in the Examiner's Answer that purport to parrot the claim language but in fact do not.

### ISSUE I

Regarding the rejection of claim 1 under 35 U.S.C. § 102(b) over Schäfer I,

Appellants wish to clarify that, in contrast to the Examiner's assertions, claim 1 does not recite "a metering bar positioned opposed to or against an applicator roll" (see Examiner's Answer, page 11). Rather, a careful reading of claim 1 reveals that claim 1 requires the metering bar to be positioned against the applicator.

Further regarding the rejection of claim 1 under 35 U.S.C. § 102(b) over Schäfer I, in an attempt to support the rejection, the Examiner provides speculation regarding the

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apparatus depicted in Figure 1 of Schäfer I (see, Examiner's Answer, page 11). Speculation is not evidence and is not a proper basis on which to form a rejection under 35 U.S.C. § 102. See, e.g., In re Warner, 154 U.S.P.Q. 173 (CCPA 1967); Ex parte Natale, 11 U.S.P.Q.2d 1222 (Bd.Pat.App. 1989). Therefore it can be accorded no weight. Here, not only does the Examiner rely on speculation, but the Examiner's speculation directly contradicts the express teaching in Schäfer I, which states that the metering roll forms a gap with the applicator roll (see, Schäfer I, col. 4, lines 15-16) (emphasis added). The Board cannot ignore the express teaching of Schäfer I.

To the extent that the Examiner's position is actually based on inherent anticipation, it also must fail. Inherent anticipation requires the missing descriptive component to be "necessarily present," not merely probably or possibly present, in the cited reference. Trintec Industries, Inc. v. TOP U.S.A. Corp., 295 F.3d 1292, 1295 (Fed. Cir. 2002), citing In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). "Inherency does not embrace probabilities or possibilities." Id. Since Schäfer I expressly discloses that there is a gap between the metering roll and the applicator, it is not "necessarily" the case that the metering roll is positioned against the applicator roll. Thus, Schäfer I does not expressly or inherently teach each and every element of claim 1. Accordingly, the rejection of claim 1 under 35 U.S.C. § 102(b) over Schäfer I cannot be sustained.

Appellants further note that the Examiner's speculation regarding the functioning of Appellants' claimed apparatus has no relevance to the issue at hand and merely serves to distract and confuse the issue. The Examiner bears the burden of proving that Schäfer I teaches each and every element of the apparatus of claim 1. Since the Examiner has failed to carry this burden, the rejection of claim 1 under 35 U.S.C. § 102(b) over Schäfer I cannot be sustained and must be overruled.

Regarding the rejection of claim 10 under 35 U.S.C. § 102(b) over Schäfer I, Appellants' note that it is undisputed that Schäfer I fails to provide any discussion regarding Figure 2, in general, or element 9, in particular, Schäfer I. Therefore, in order to support the rejection the Examiner resorts to speculation (see Examiner's Answer, page 12). In particular, the Examiner speculates regarding element 9 of Schäfer I and the functioning of the apparatus depicted in Figure 2 of Schäfer I (Id.). Again, speculation is not an appropriate basis for a rejection. See, e.g., In re Warner; Ex parte Natale. Claim

10 is directed to an apparatus for coating an article that includes an applicator that is a conveyor, a conveyor for sequentially transporting a plurality of articles to the applicator, and a metering bar positioned against the conveyor that is the applicator. There is nothing in the record that establishes that Schäfer I teaches a metering bar positioned against a conveyor that is an applicator. Schäfer I provides no information regarding how the structure of Figure 2 of Schäfer I operates and provides no teaching as to how or if a metering roll is positioned against any component of an apparatus that includes the structure of Figure 2 of Schäfer I. Therefore, it is not the case that Schäfer I teaches each and every element of claim 10. Accordingly, the rejection of claim 10 under 35 U.S.C. § 102(b) over Schäfer I cannot be sustained.

### ISSUE II

Regarding the rejection of claim 1 under 35 U.S.C. § 102(b) over Schäfer II, we note that the Examiner provides no citation in support of the allegation contained in the Examiner's Answer that Schäfer II teaches a metering bar positioned "against" an applicator. The Examiner provides no support because there is no support. The Examiner concedes when she writes, "Such an arrangement would means [sic] that inherently one could set the metering roll with respect to the applicator roll such that the claim invention would remain unpatentable" (Examiner's Answer, page 12). (Emphasis added). In other words, the Examiner acknowledges that Schäfer II does not actually teach a metering bar positioned against an applicator. The Examiner's position sounds as if it is based in inherency. Inherent anticipation requires the missing descriptive component to be "necessarily present," not merely probably or possibly present, in the prior art. Trintec Industries, Inc. v. TOP U.S.A. Corp., citing In re Robertson. "Inherency does not embrace probabilities or possibilities." Id. Since Schäfer II expressly discloses that there is a gap between the metering roll and the applicator, it is not "necessarily" the case that the metering roll is positioned against the applicator roll. Therefore, Schäfer II does not expressly or inherently teach a required element of claim 1, i.e., a metering bar positioned against an applicator. Accordingly, it is incumbent on the Board to overrule the rejection claim 1 under 35 U.S.C. § 102(b) over Schäfer II. ISSUE III

Regarding the rejection of claims 1, 3, 9-16 and 18 under 35 U.S.C. § 102(b) over Knain, we note the statements in the Examiner's Answer might lead the Board to believe that claim 1 recites something that it does not. The Examiner appears to imply that claim I recites, "to meter or maintain the desired amount of material for application to each article" (Examiner's Answer, page 13). This is not the language of claim 1. Claim 1 recites, "a metering bar positioned against said applicator to meter a predetermined amount of coating composition to the applicator for transfer to an article." The Examiner takes the position that element 47 is positioned against an applicator to meter a predetermined amount of coating composition to the applicator for transfer to an article (Id. pages 13-14). A careful reading of Knain belies the Examiner's position. To wit, Knain explains

Additional scraper bars 47 are used to remove any paint that might have been deposited in the undercut portions 45 of the belts. In other words, the side edges of the belts are given undercut extension which are used to carry off the excess paint that might build up on the edges. Hence, the working surface of the belt is that part of the belt between the undercut portions 45.

(Knain, col. 4, lines 52-60). (Emphasis added). Thus, it cannot be disputed that Knain fails to teach each and every element of claim 1. Therefore, the Board must overrule the rejection of claims 1, 3, 9-16 and 18 under 35 U.S.C. § 102(b) over Knain.

### **ISSUE IV**

Regarding the rejection of claims 1 and 9 under 35 U.S.C. § 102(b) over Schrauwers et al., we remind the Board that element 16 of Schrauwers frees (i.e., completely removes) the external surface of the transfer cylinder 5 from residual glaze before the transfer cylinder receives additional glaze (see Schrauwers, col. 2, lines 40-47). In other words, element 16 of Schrauwers cleans off the cylinder before it receives glaze from the feed source. Element 16 of Schrauwers has nothing to do with metering a predetermined amount of coating composition to the applicator for transfer to an article. The Examiner asserts, "[T]he metering bar [of Schrauwers] facilitates uniform metering of the coating material" (see Examiner's Answer, page 14). This is not the language of claim 1. Rather, claim 1 recites, "a metering bar positioned against said applicator to

meter a predetermined amount of coating composition to the applicator for transfer to an article." Thus, there being no evidence of record establishing that Schrauwers teaches each and every element of claim 1, the Board cannot sustain the rejection of claims 1 and 9 under 35 U.S.C. § 102(b) over Schrauwers.

### ISSUE V

Regarding the rejection of claims 1, 9 and 57 under 35 U.S.C. § 103 over Shiraishi et al., Appellants wish to clarify that, although the Examiner asserts, "The control of the amount of coating material applied to the applicator and then to the article results from the metering bar or blade (7) removing leftover applied coating" (Id., page 15), there is no such teaching in Shiraishi et al. It is telling that the Examiner's Answer contains no reference to the location within Shiraishi et al. where such a teaching can be found. The Examiner next asserts, "[T]he Shiraishi et al. metering bar facilitates uniform metering of the coating material in a predetermined amount" (Id.). This is not the language of claim 1. Rather, claim 1 recites, "a metering bar positioned against said applicator to meter a predetermined amount of coating composition to the applicator for transfer to an article." Moreover, the Examiner's assertion that Shiraishi et al. teach the elements of claim 1 is disingenuous. Shiraishi et al. expressly disclose that "rubber roll 5 is supplied with paste 2 by the doctor blade 6" (Shiraishi et al., col. 3, lines 15-16). Thus, doctor blade 6 meters the amount of paste applied to the applicator, i.e., rubber roll 5 -not bending blade 7, as the Examiner would have the Board believe. The Examiner has provided no evidence establishing that Schrauwers teaches each and every element of claim 1. Accordingly, the Board cannot sustain the rejection of claims 1, 9 and 57 under 35 U.S.C. § 102(b) over Shiraishi et al.

## **ISSUE VI**

Regarding the rejection of claim 1 under 35 U.S.C. § 102(b) over Rebentisch, the Examiner acknowledges that Rebentisch does not expressly teach a metering bar positioned "against" an applicator (see Examiner's Answer, page 15). The Examiner then resorts to speculation to support the rejection (Id.), which, as has been established above, is not an appropriate basis for a rejection. See, e.g., In re Warner; Ex parte

Natale. However, even the Examiner's speculation is not credible because the figure relied upon (Figure 1) by the Examiner depicts a gap between the doctor blade and the applicator. In addition, Rebentisch discloses, "adhesive received on the band at the passage way 2 is carried on the band past a doctor blade 6 for reducing the adhesive to a desired thickness" (Rebentisch, col. 2, lines 12-15). Thus, Rebentisch does not teach each and every element of claim 1. Accordingly, the rejection claim 1 under 35 U.S.C. § 102(b) over Rebentisch cannot be upheld and must be overruled.

### ISSUE VII

Regarding the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schäfer I. Appellants again emphasize that there is simply no suggestion or motivation in Schäfer I to make the modifications proposed in the Examiner's Answer. The Examiner asserts that obtaining the properties recited in Appellants' claims 6 and 7 would be a matter of routine experimentation (see, Examiner's Answer, pages 15-16). "A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of [the] variable might be characterized as routine experimentation." M.P.E.P. 2144.05 II.B, citing In re Antoine, 559 F.2d 618 (CCPA 1977). The Examiner has provided no evidence demonstrating that the skilled artisan knew that the force of a metering bar positioned against an applicator is a result effective variable. Moreover, because the roller of Schäfer I does not even touch the applicator, the skilled artisan would not think to alter the pressure applied by the roller to the applicator -let alone optimize such a pressure. Furthermore, Schäfer I achieves a desired coating thickness based on the gap between the roller and the applicator (see Schäfer I, col. 4, lines 15-17). Accordingly, the skilled artisan would alter the gap -not the pressure of the metering roller against the applicator. Since the Examiner has failed to carry her burden of establishing a prima facie case of obviousness, the Board must overrule the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schäfer I.

Regarding the rejection of claim 8 under 35 U.S.C. § 103 over Schäfer I, the record is devoid of any evidence establishing that there is a suggestion or motivation to modify the apparatus of Schäfer I such that it would be configured to enable the

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applicator to apply a coating to the edge face of a roll of tape disposed between the conveyor and the applicator, as required by claim 8. The Examiner's Answer does not dispute this (see Examiner's Answer, page 16). Instead, the Examiner's position sounds as if it is based in inherency (Id.). Inherency is a doctrine that has been established with respect to anticipation; Inherency is not a proper basis for an obviousness rejection. See, e.g., In re Spormann, 53 C.C.P.A. 1375, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966) ("That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown"). Inherency also is not a substitute for some teaching or suggestion supporting an obviousness rejection. See In re Newell, 891 F.2d 899, 901, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989). Thus, it is the Examiner's burden to establish that there is a suggestion or motivation to modify the apparatus of Schäfer I to achieve the apparatus of claim 8. Here, the Examiner has not identified anything in Schäfer I that suggests or motivates the skilled artisan to modify Schäfer I, which is directed to coating multilayer printed circuit boards, to achieve the apparatus of claim 8. Accordingly, the skilled artisan would have no reason to do so. Since the Examiner has failed to establish a prima facie case of obviousness, the rejection of claim 8 under 35 U.S.C. § 103 over Schäfer I cannot be sustained.

## ISSUE IX

Regarding, the rejection of claims 4 and 5 under 35 U.S.C. § 103 over Schäfer II, the Examiner asserts that it would have been obvious to use a metering roller of a desired dimension to effect uniform metering of the applicator roller, yet minimize manufacturing costs (see Examiner's Answer, page 9 and 17). There is simply nothing in Schäfer II that indicates that the diameter of the metering roll affects the uniformity of the metering or that the dimension of the metering roll has any impact on manufacturing costs—let alone that it minimizes manufacturing costs. In fact there is nothing in the record that establishes that the diameter of the metering roll has any bearing on the apparatus of Schäfer II. Therefore, there is no support for the Examiner's asserted motivation for modifying Schäfer II. Accordingly, the skilled artisan would have no reason to modify the metering roll of Schäfer II to achieve a metering bar having a radius of at least about 2.5 mm, or at least about 4.0 mm, as required by claims 4 and 5.

respectively. For at least this additional reason, the Examiner has failed to establish a prima facie case of obviousness and the rejection of claims 4 and 5 under 35 U.S.C. § 103 over Schäfer II cannot be sustained.

Regarding, the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schäfer II, it is well established that a particular parameter must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of the variable can be characterized as routine experimentation. M.P.E.P. 2144.05 II.B, citing In re Antoine. The Examiner has provided no evidence demonstrating that the skilled artisan recognized that the force of a metering bar positioned against an applicator is a result effective variable. Moreover, because the roller of Schäfer II does not even touch the applicator, the skilled artisan would not think to alter the pressure applied by the roller to the applicator. Instead, the skilled artisan would alter the gap between the metering roll and the applicator roll, because Schäfer II discloses that it is the gap that affects the coating thickness—not the pressure being applied by the metering roll to the applicator (see Schäfer II, col. 4, lines 50-52). Thus, the Examiner has failed to establish a prima facie case of obviousness and the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schäfer II must be overruled.

### ISSUE X

Regarding the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Knain, Appellants remind the Board that element 47 of Knain removes the coating composition from the nonapplicator surface of the conveyor (see Knain, col. 4, lines 52-60). Element 47 of Knain has nothing to do with metering a predetermined amount of coating composition to the applicator for transfer to an article. Element 47 does not even touch the working surface of the applicator of Knain (see, Id.). For the Examiner to suggest otherwise is disingenuous. No amount of modifying or experimentation associated with element 47 would ever achieve the apparatus of claims 6 and 7. The Examiner has failed to establish a prima facie case of obviousness. As such it is incumbent upon the Board to find that the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Knain is wholly unwarranted and must be overruled.

#### ISSUE XI

Regarding the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schrauwers et al., we remind the Board that element 16 of Schrauwers frees (i.e., completely removes) the external surface of the transfer cylinder 5 from residual glaze before the transfer cylinder receives additional glaze (see Schrauwers, col. 2, lines 40-47). In other words, element 16 of Schrauwers cleans off the cylinder before it receives glaze from the feed source. Element 16 of Schrauwers has nothing to do with metering a predetermined amount of coating composition to the applicator for transfer to an article. Therefore no amount of modifying or experimentation associated with element 16 would ever achieve the apparatus of claims 6 and 7. The Examiner's position to the contrary is disingenuous. Since the Examiner has failed to establish a prima facie case of obviousness, it is incumbent upon the Board to overrule that the rejection of claims 6 and 7 under 35 U.S.C. § 103 over Schrauwers.

#### ISSUE XII

Regarding the rejection of claim 8 under 35 U.S.C. § 103 over Shiraishi et al., the Examiner alleges that the skilled artisan would "expect the Shiraishi et al. apparatus to enable coating of a variety of sizes of rolls of tape" (Examiner's Answer, page 11). This is not the test for obviousness. Obviousness requires a teaching, suggestion or motivation for modifying a reference to achieve the claimed invention. See B.F. Goodrich Co. v. Aircraft Braking Sys. Corp., 72 F.3d 1577, 1582, 37 U.S.P.Q.2d 1314, 1318 (Fed. Cir. 1996). In addition, the prior art must reveal a reasonable expectation of success to the skilled artisan. In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991). The record is devoid of any evidence establishing that there is a suggestion or motivation to modify the apparatus of Shiraishi et al. such that it would be configured to enable the applicator to apply a coating to the edge face of a roll of tape disposed between the conveyor and the applicator, as required by claim 8. The Examiner's position to the contrary sounds as if it is based in inherency. Inherency is not a proper basis for an obviousness rejection. See, e.g., In re Spormann ("That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown"). Inherency also is not a substitute for some teaching or suggestion supporting an obviousness rejection. See In re

Newell. Thus, it is the Examiner's burden to establish that there is a suggestion or motivation to modify the apparatus of Shiraishi et al. to achieve the apparatus of claim 8. Here, the Examiner has not identified anything in Shiraishi et al. that suggests or motivates the skilled artisan to modify Shiraishi et al., which is directed to coating a longitudinal edge of automobile glass, to achieve the apparatus of claim 8. Accordingly, the skilled artisan would have no reason to do so. Moreover, there is nothing in Shiraishi et al. that provides the skilled artisan with a reasonable expectation that the apparatus of Shiraishi et al. could be successfully modified to achieve the apparatus of claim 8. Since the Examiner has failed to establish a prima facie case of obviousness, the rejection of claim 8 under 35 U.S.C. § 103 over Shiraishi et al. cannot be sustained.

Appellants note that there is no outstanding rejection of claim 8 under 35 U.S.C. § 102. To the extent that the Examiner now seeks to assert a new ground of rejection as to claim 8, such an action is prohibited under M.P.E.P. 1208.01. If the Examiner wishes to enter a new ground of rejection, the proper course is to reopen prosecution.

For at least these additional reasons the rejections of record cannot be sustained and must be overruled. A decision in accordance therewith is respectfully requested.

Please charge any fees or credit any over payments to Deposit Account No. 501,171.

Respectfully submitted,

Date: September 8, 2003

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